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10/572,176

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Peter Wiedemann

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EXAMINER

PAIK, SANG YEOP

ART UNIT

PAPER NUMBER

3742

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/572,176	<b>Applicant(s)</b> WIEDEMANN ET AL.	
	<b>Examiner</b> SANG Y. PAIK	<b>Art Unit</b> 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/16/06</u> .   | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because the details of the individual heating resistors are not distinctly shown from each other and how the heating tracks are connected in series with the parallel connected resistors in Figure 2. Also, the arrows indicating different parts of the heating resistors and tracks do not distinctly point out the respective parts. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-45 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a heating element layer or a heating resistor, does not reasonably provide enablement for the combined scope of the heating element layer and the heating resistor as recited in claims 1, 36 and 40. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make or use the invention commensurate in scope with these claims. Throughout the claims the use of "and/or" fails to make or use of the invention with the elements that are read to combine such elements. For example, in claims 2 and 4-6, the specification does not enable how the mechanical layer and the first thermal insulating layer are used together to make and use the invention.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1- 45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 36 and 40, the recitation "can be" does not positively recite the scope of the claim.

In claim 2, it is unclear what the scope of claim is by the claim recitation of "a device in which heating is completely or in regions essentially tubular."

In claim 5, a "second section of the elastic arresting element" is recited, but there is no recited first section preceding such second section. It is unclear how such "second section" would define or ascertain the scope of the claims in the absence of a first section.

In claim 7, there is no proper antecedent basis for the "third section" that is attached with the "fourth section."

In claims 11-13, a "second insulating layer" is recited but, there is no recited first insulating layer preceding such second section. It is unclear how such "second insulating layer" would define or ascertain the scope of the claims in the absence of a first insulating layer.

In claim 30, there is no first electrically conducting means recited preceding the recited "second electrically conducting means" to ascertain the scope of the claim.

Claim 31 depends on claims 16 and 30 wherein a plurality of tracks is recited, and it is unclear which of the heating tracks is referred by the "one first outer heating track" recited in claim 31. Or, is a first outer heating track another heating track different from previously recited tracks?

Claim 32 lacks proper antecedent basis for the first and/or third electrically conducting means.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-15, 26, 27, 36 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Hurko (US 3,895,216).

Hurko shows the structure claimed including a supporting layer made of stainless steel, a flat film heating element layer that is coated on the supporting layer, an electrical contact that is brought into contact with the heating element with an elastic arresting element shown by element 18, an insulating layer that is disposed between the supporting layer and the heating element, a mechanical buffer layer (16) disposed between the heating layer and the elastic arresting element, a pressing means including a terminal blade (70) and a nut (64) pressing the elastic arresting element, the mechanical buffer layer, the heating element and the separating layer, an outlet in one second section of the elastic arresting element with a first section of the elastic arresting section that is the section where the elastic element is indirectly connected to the contact element, and a fourth section of the elastic arresting is the section that is connected to the second section where an outlet is formed thereto. Hurko also shows an insulator that is shown by element (16) through which the conducting member is connected to the elastic arresting element.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hurko (US 3,895,216) in view of Bogdanski et al (US 6,150,636) or Schilling et al (US5,396,047).

Hurko shows the structure claimed except for explicitly showing a control unit.

Bogdanski or Schilling shows that is well known in the art to provide a heating element with a control unit to regulate power to the heating element.

In view of Bogdanski or Shilling, it would have been obvious to one of ordinary skill in the art to adapt Hurko with a control unit to control power to the heating element to provide a desired cooking temperature.

10. Claims 40, 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hurko (US 3,895,216) in view of Ruelle et al (US 4,971,848).

Hurko shows the method claimed except for applying the heating resistors with a serigraphic technique.

Ruelle shows that is known to provide a heating element with a serigraphic technique.

It would have been obvious to one of ordinary skill in the art to adapt Hurko with the heating resistors provided with a serigraphic technique since such technique is known to provide an electrically conducting heating element.

11. Claims 41 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hurko in view of Ruelle as applied to claims 40, 42 and 43 above, and further in view of Yahav et al (US 5,508,495).

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Hurko in view of Ruelle shows the method claimed except for a covering layer.

Yahav shows that it is known in the art to provide a covering layer to a heating element.

In view of Yahav, it would have been obvious to one of ordinary skill in the art to adapt Hurko, as modified by Ruelle, with a covering layer over the heating element to protect and insulate the heating element from being damaged or touched by a user.

12. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hurko in view of Ruelle as applied to claims 40, 42 and 43 above, and further in view of Nozaki et al (US 5,264,681) or Sawamura (US 5,997,998).

Hurko in view of Ruelle shows the method claimed except the electrical resistance being adjusted by dimensioning the geometric measurements of the heating resistors.

Nozaki or Sawamura shows that it is known in the art that an electrical resistance is adjusted by dimension the electrical conductive element wherein a narrower dimension would increase an electrical resistance while widening of the dimension would decrease an electrical resistance of an electrically conductive element.

In view of Nozaki or Sawamura, it would have been obvious to one of ordinary skill in the art to adapt Hurko, as modified by Ruelle, with the heating resistors having a desired electrical resistance by either narrowing or widening the dimension of the resistors to increase or decrease the electrical resistance, respectively, to produce a desired heating temperature.



***Allowable Subject Matter***

13. Claims 16-25, 28-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SANG Y. PAIK whose telephone number is (571) 272-4783. The examiner can normally be reached on M-F (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on (571) 272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SANG Y PAIK/  
Primary Examiner, Art Unit 3742

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